

# PATENT COOPERATION TREATY

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From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

## PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/JP2005/009813

International filing date (day/month/year)  
23.05.2005

Priority date (day/month/year)  
22.05.2004

International Patent Classification (IPC) or both national classification and IPC  
G01R31/3183, G06F11/263

Applicant  
ADVANTEST CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/JP2005/009813

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/JP2005/009813

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**Box No. IV Lack of unity of invention**

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1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☐ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☒ not paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☒ complied with
  - ☐ not complied with for the following reasons:
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
  - ☒ the parts relating to claims Nos. 1-7,16-32

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**Box No. V Reasoned statement under Rule 43bis.1(a)(I) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	2-7,17, 18, 20, 21,23-30
	No: Claims	1,16,19,22,31,32
Inventive step (IS)	Yes: Claims	5-7,17,18,23-27,30
	No: Claims	2-4, 20, 21, 28, 29
Industrial applicability (IA)	Yes: Claims	1-32
	No: Claims	

2. Citations and explanations

**see separate sheet**

Citations:

D1: US2003/0217343 A

D2: DE10031536 A1

**Re Item IV**

**1 Rule 13 PCT (non-unity)**

1.1 This Authority considers that there are 2 inventions covered by the claims indicated as follows:

I: Claims 1-7 and 16-32

Directed to a method and system for generating a test program by means of a test plan file, a test class file and a pre-header file.

Special technical features: cf. claims 5-7, 17-21, 23-30

II: Claims 8-15

Directed to a pre-header comprising parameter and template section for generating a test program.

Special technical features: cf. claim 12.

1.2 The two groups are not so linked as to form a single general inventive concept: The common technical feature of groups I and II is "pre-header (file) for generating a test program". The content of the pre-header is not specified in the independent claims of group I (and may be understood as any introducing text of a test program or as an un-compiled test pattern file; cf D1, Figs. 2 & 4, cf. paragraph 2.1, below). This technical feature is not novel and can therefore not be considered as common inventive concept in the sense of Rules 13.1 and 13.2 PCT.

The application, hence does not meet the requirements of unity of invention as defined in Rules 13.1 and 13.2 PCT.

**Re Item V**

Group I: Claims 1-7 and 16-32:

**2. Article 33(2) PCT (novelty)**

**2.1 INDEPENDENT CLAIM 1:**

D1, which is considered to represent the closest prior art, discloses a method for developing a test program for a semiconductor test system, the test system including at least one test module for applying at least one test to a device-under-test according to the test program, comprising: describing a test plan file (61 in Fig. 4) in a test program language (generated via format translation 55, the test plan file is in the compiler specific test program language), wherein the test plan file describes at least one test of the test program (cf. paragraph [0044]), describing a "test class file" (compiled pattern 66) in a system program language and a corresponding pre-header file (un-compiled pattern 62) of the test class file in the TPL, wherein the test class file (pattern 62) describes an implementation of the at least one test of the test program; and generating the test program using the test plan file, the test class file and the pre-header file (i.e. combining OBJ files 64 and 66); cf D1, abstract, Figs. 2 and 4, paragraphs [0042] - [0049].

Comment: The expressions "test program language", "system program language", "test class file" and "pre-header file" are not specified by characterizing technical features and thus can be read on the disclosure of D1.

**2.2 INDEPENDENT CLAIM 16:**

cf. paragraph 2.1, above. Validation of the silicon (cf. D1, paragraph [0069]) or compiling a program is in the same time a validation of the test program.

**2.3 INDEPENDENT CLAIM 22:**

This claim comprises the apparatus features of method claim 1; cf. paragraph 2.1, above.

**2.4 Claim 19:** Running/compiling a file implies "verifying semantics" (otherwise an error message is issued).

**2.5 Claim 31, 32:** cf D1, Fig. 4, OBJ files and link in tester hardware 68.

Consequently, the subject-matter of the claims 1, 16, 19, 22, 31 and 32 is not novel.

3. **Article 33(3) PCT (inventive step)**

- 3.1 Claim 2, 28: using C/C++ as a "system program language" is well-known in the field of test program development.
- 3.2 Claim 3, 29: are obvious in view of the compiler structure shown in Fig. 4 of D1.
- 3.3 Claim 4: cf paragraph 2.2 and 3.2, above.
- 3.4 Claim 20, 21: It is well-known to verify entity attributes, parameters and functional calls before compiling a (test) file.

Consequently, the subject-matter of the claims 2-4, 20, 21, 28 and 29 is not inventive.

4. **Re Item VII and VIII**

- 4.1 The number of (4 independent) claims is not reasonable in consideration of the nature of the invention claimed (**Rule 6.1 (a) PCT**).
- 4.2 The present set of claims lacks reference signs and is not in the two-part form (**Rules 6.2 (b) and 6.3 (b) PCT**).
- 4.3 The relevant prior art documents D1 and D2 are not cited and discussed in the description (**Rule 5.1 (ii) PCT**).
- 4.4 In the independent claims the expressions "*test program language*", "*system program language*", "*test class file*" and "*pre-header file*" are not specified by characterizing technical features and thus are unclear. In addition, a computer program file as such is non-technical. Non-technical features are not taken into account for inventive step.